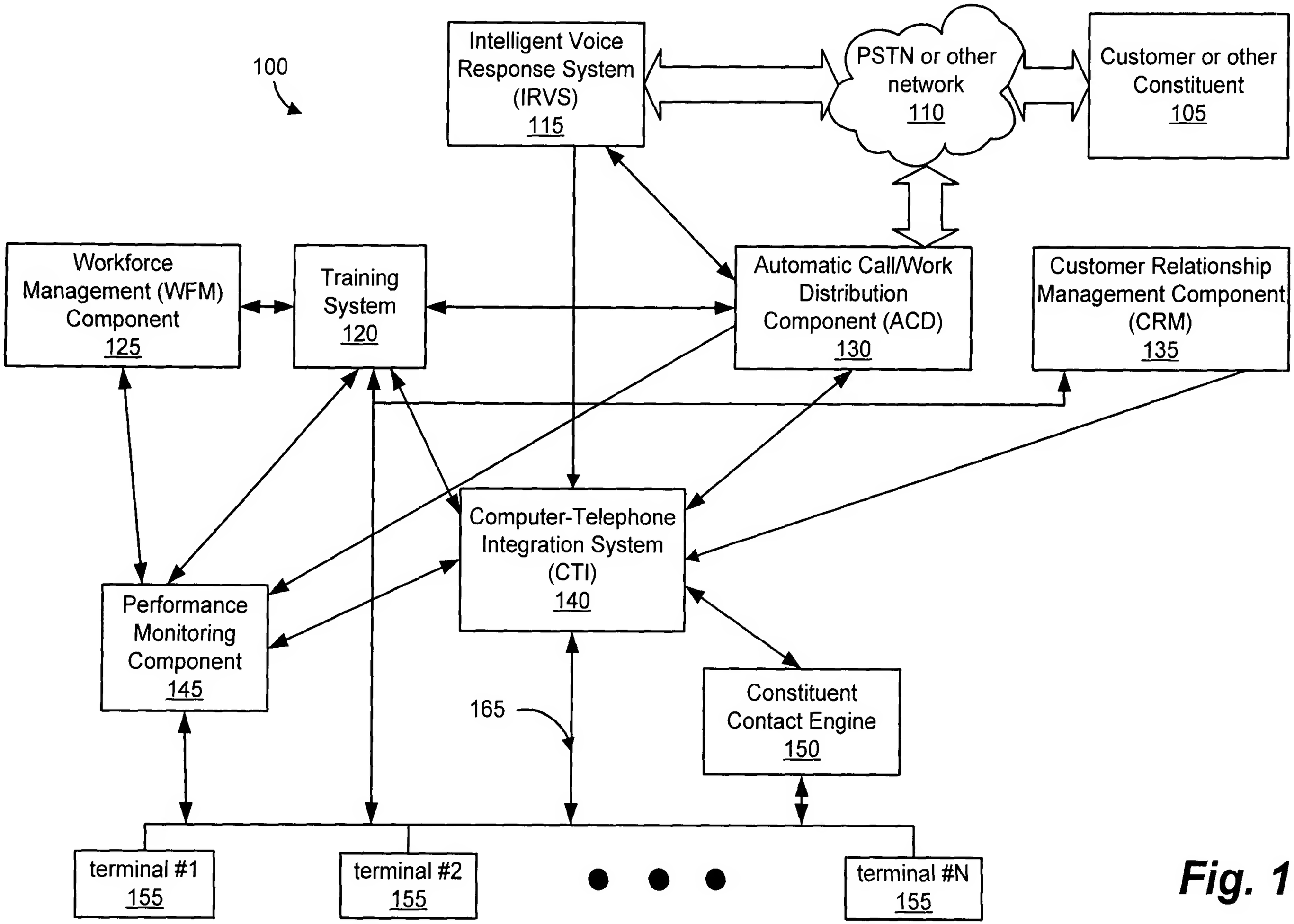

100
Intelligent Voice Response System (IRVS) 115
PSTN or other network 110
Customer or other Constituent 105
Workforce Management (WFM) Component 125
Training System 120
Automatic Call/Work Distribution Component (ACD) 130
Customer Relationship Management Component (CRM) 135
Computer-Telephone Integration System (CTI) 140
Performance Monitoring Component 145
Constituent Contact Engine 150
165
terminal #1 155
terminal #2 155
terminal #N 155

Fig. 1

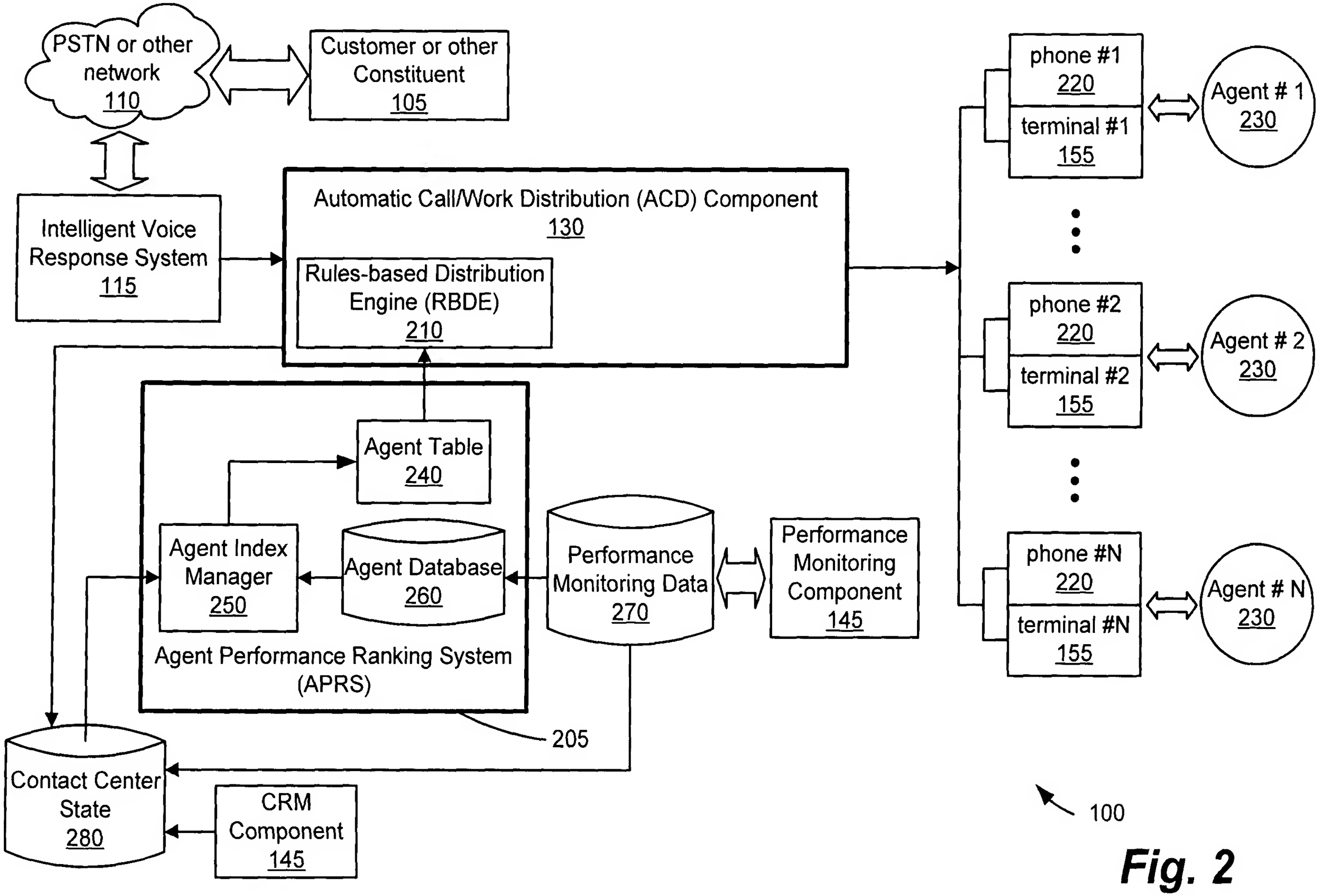

PSTN or other network 110
Customer or other Constituent 105
Intelligent Voice Response System 115
Automatic Call/Work Distribution (ACD) Component 130
Rules-based Distribution Engine (RBDE) 210
Agent Table 240
Agent Index Manager 250
Agent Database 260
Agent Performance Ranking System (APRS)
Performance Monitoring Data 270
Performance Monitoring Component 145
205
Contact Center State 280
CRM Component 145
phone #1 220
terminal #1 155
Agent # 1 230
phone #2 220
terminal #2 155
Agent # 2 230
phone #N 220
terminal #N 155
Agent # N 230
100

Fig. 2

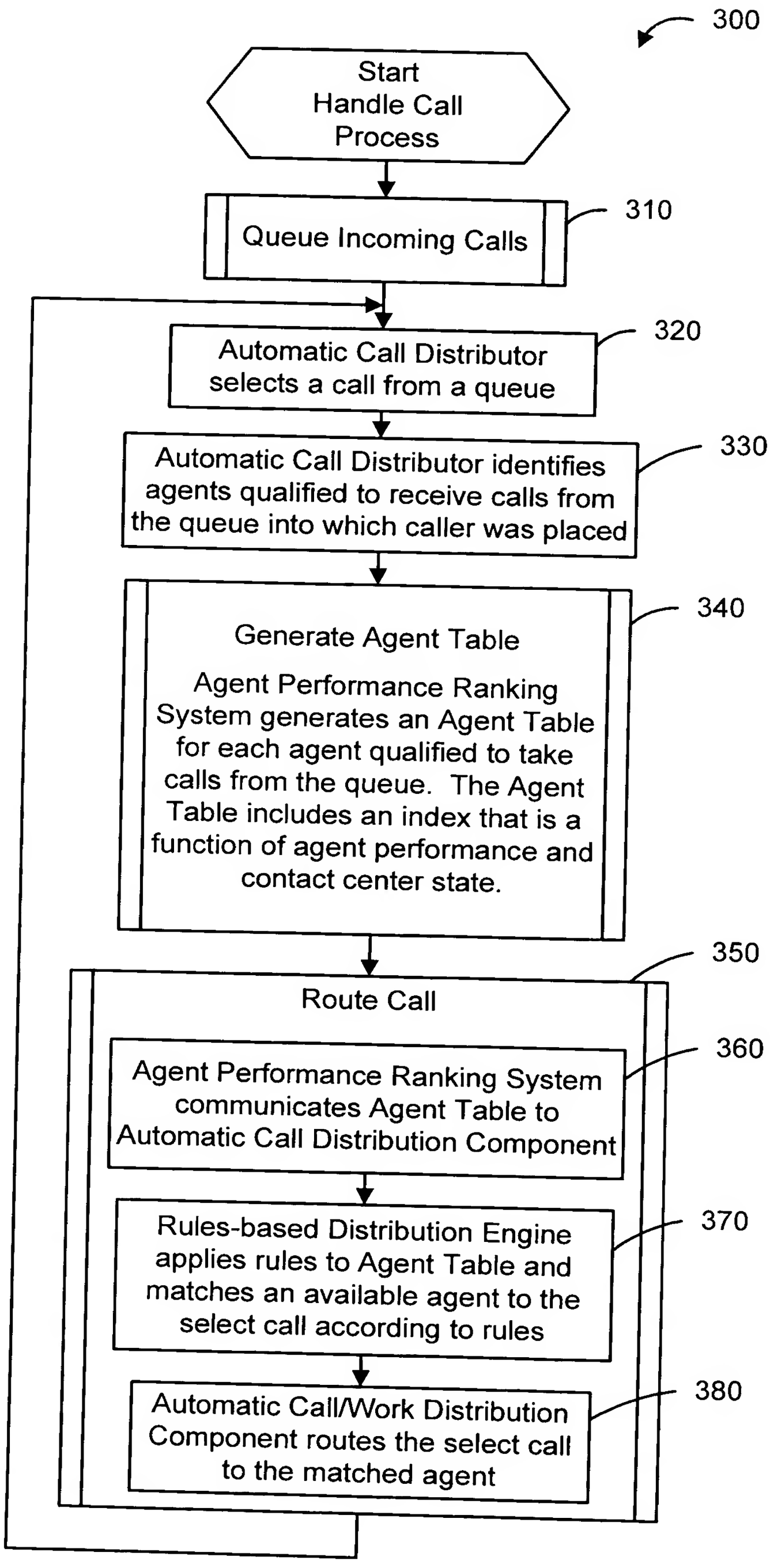

300
Start
Handle Call
Process
Queue Incoming Calls
310
Automatic Call Distributor
selects a call from a queue
320
Automatic Call Distributor identifies
agents qualified to receive calls from
the queue into which caller was placed
330
Generate Agent Table
Agent Performance Ranking
System generates an Agent Table
for each agent qualified to take
calls from the queue. The Agent
Table includes an index that is a
function of agent performance and
contact center state.
340
Route Call
350
Agent Performance Ranking System
communicates Agent Table to
Automatic Call Distribution Component
360
Rules-based Distribution Engine
applies rules to Agent Table and
matches an available agent to the
select call according to rules
370
Automatic Call/Work Distribution
Component routes the select call
to the matched agent
380

Fig. 3

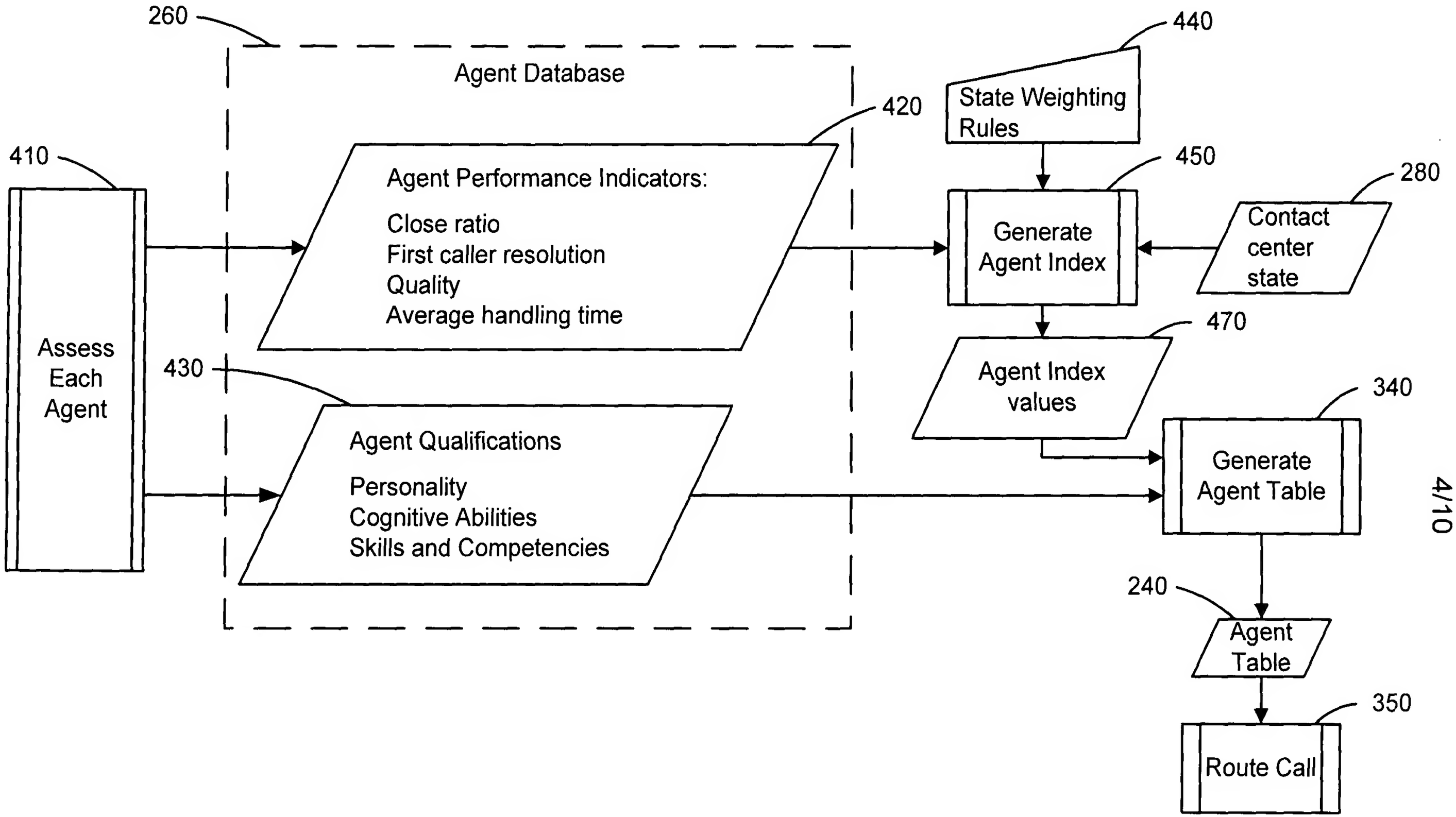

260
Agent Database
440
State Weighting Rules
420
410
Agent Performance Indicators:
Close ratio
First caller resolution
Quality
Average handling time
450
280
Generate Agent Index
Contact center state
470
Agent Index values
430
340
Agent Qualifications
Personality
Cognitive Abilities
Skills and Competencies
Generate Agent Table
Assess Each Agent
240
Agent Table
350
Route Call

Fig. 4

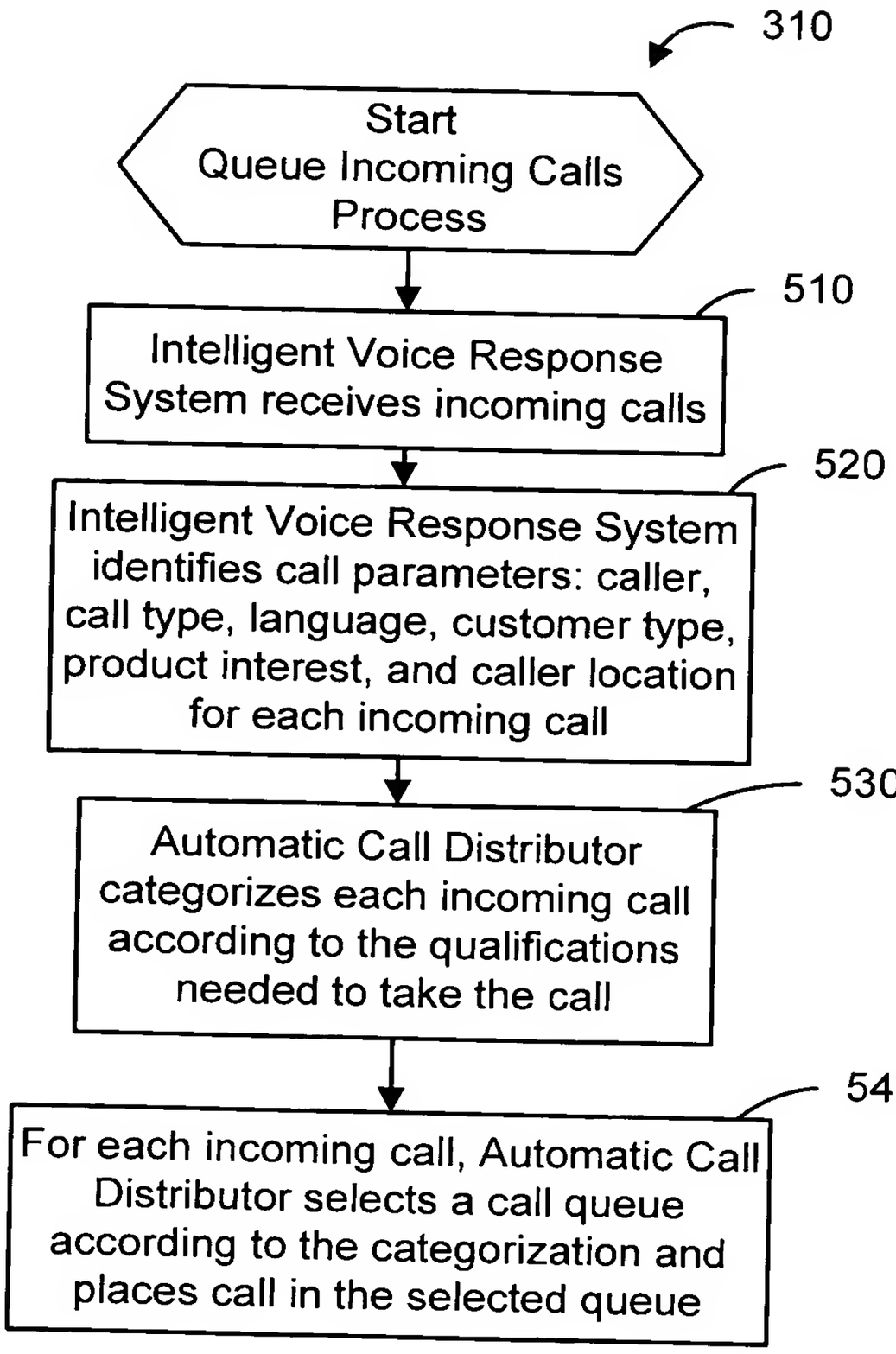

310
Start
Queue Incoming Calls
Process
510
Intelligent Voice Response System receives incoming calls
520
Intelligent Voice Response System identifies call parameters: caller, call type, language, customer type, product interest, and caller location for each incoming call
530
Automatic Call Distributor categorizes each incoming call according to the qualifications needed to take the call
540
For each incoming call, Automatic Call Distributor selects a call queue according to the categorization and places call in the selected queue

Fig. 5

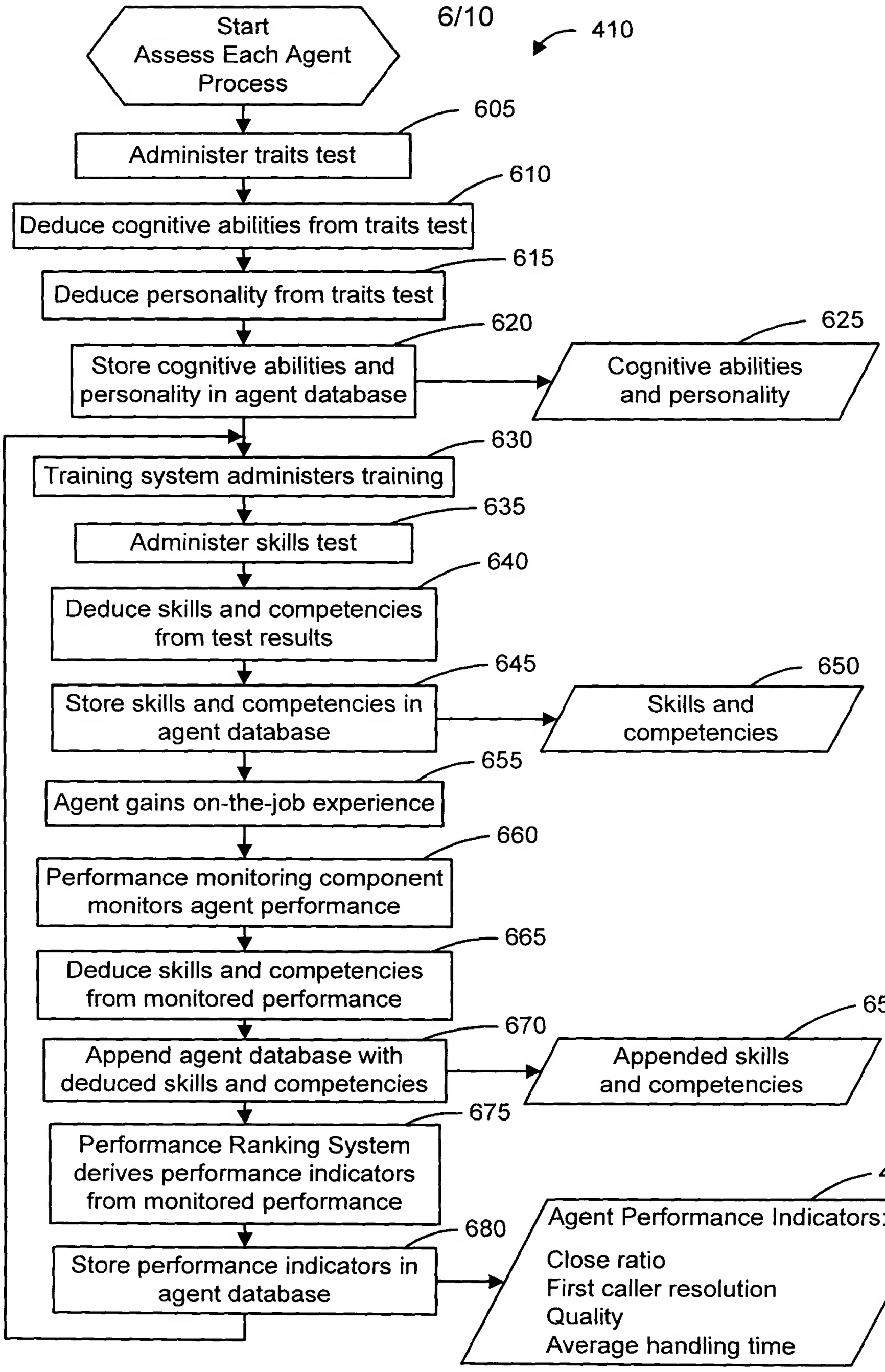

Start
Assess Each Agent Process
410
605
Administer traits test
610
Deduce cognitive abilities from traits test
615
Deduce personality from traits test
620
Store cognitive abilities and personality in agent database
625
Cognitive abilities and personality
630
Training system administers training
635
Administer skills test
640
Deduce skills and competencies from test results
645
Store skills and competencies in agent database
650
Skills and competencies
655
Agent gains on-the-job experience
660
Performance monitoring component monitors agent performance
665
Deduce skills and competencies from monitored performance
650
670
Append agent database with deduced skills and competencies
Appended skills and competencies
675
Performance Ranking System derives performance indicators from monitored performance
680
Store performance indicators in agent database
420
Agent Performance Indicators:
Close ratio
First caller resolution
Quality
Average handling time

Fig. 6

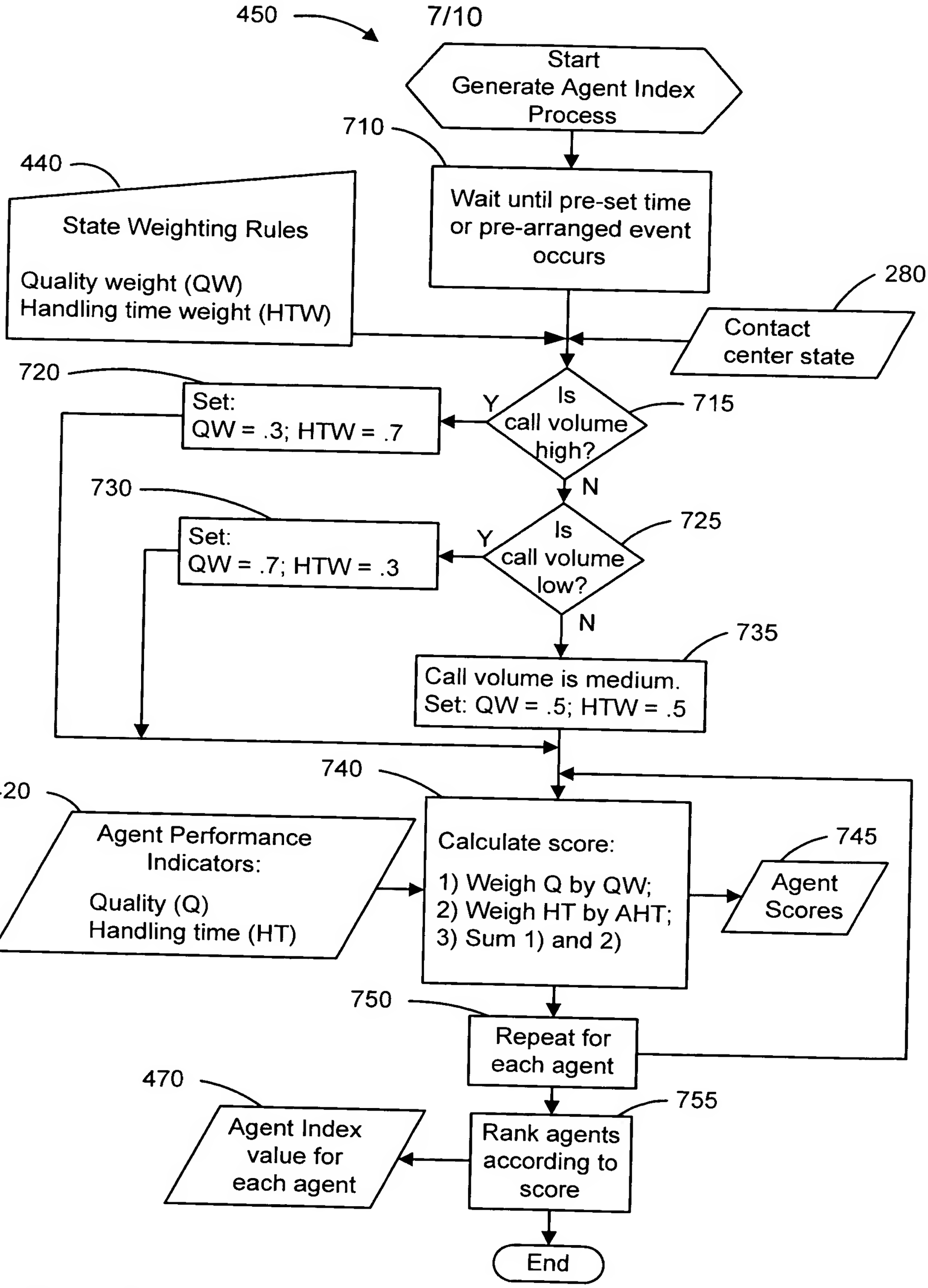

450
Start
Generate Agent Index
Process
710
Wait until pre-set time
or pre-arranged event
occurs
440
State Weighting Rules
Quality weight (QW)
Handling time weight (HTW)
280
Contact
center state
720
Set:
QW = .3; HTW = .7
Y
Is
call volume
high?
715
N
730
Set:
QW = .7; HTW = .3
Y
Is
call volume
low?
725
N
735
Call volume is medium.
Set: QW = .5; HTW = .5
740
420
Agent Performance
Indicators:
Quality (Q)
Handling time (HT)
Calculate score:
1) Weigh Q by QW;
2) Weigh HT by AHT;
3) Sum 1) and 2)
745
Agent
Scores
750
Repeat for
each agent
470
Agent Index
value for
each agent
755
Rank agents
according to
score
End

Fig. 7

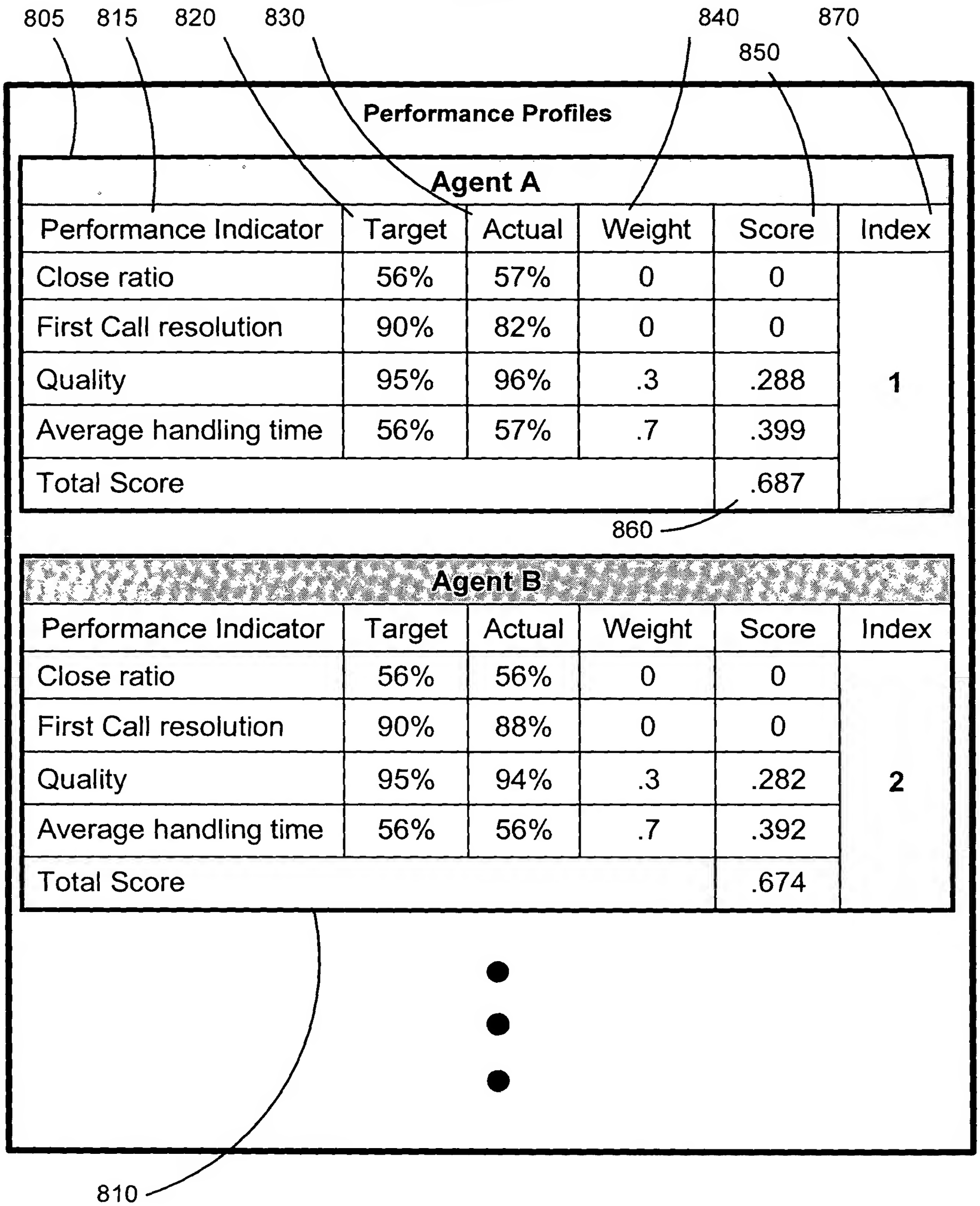
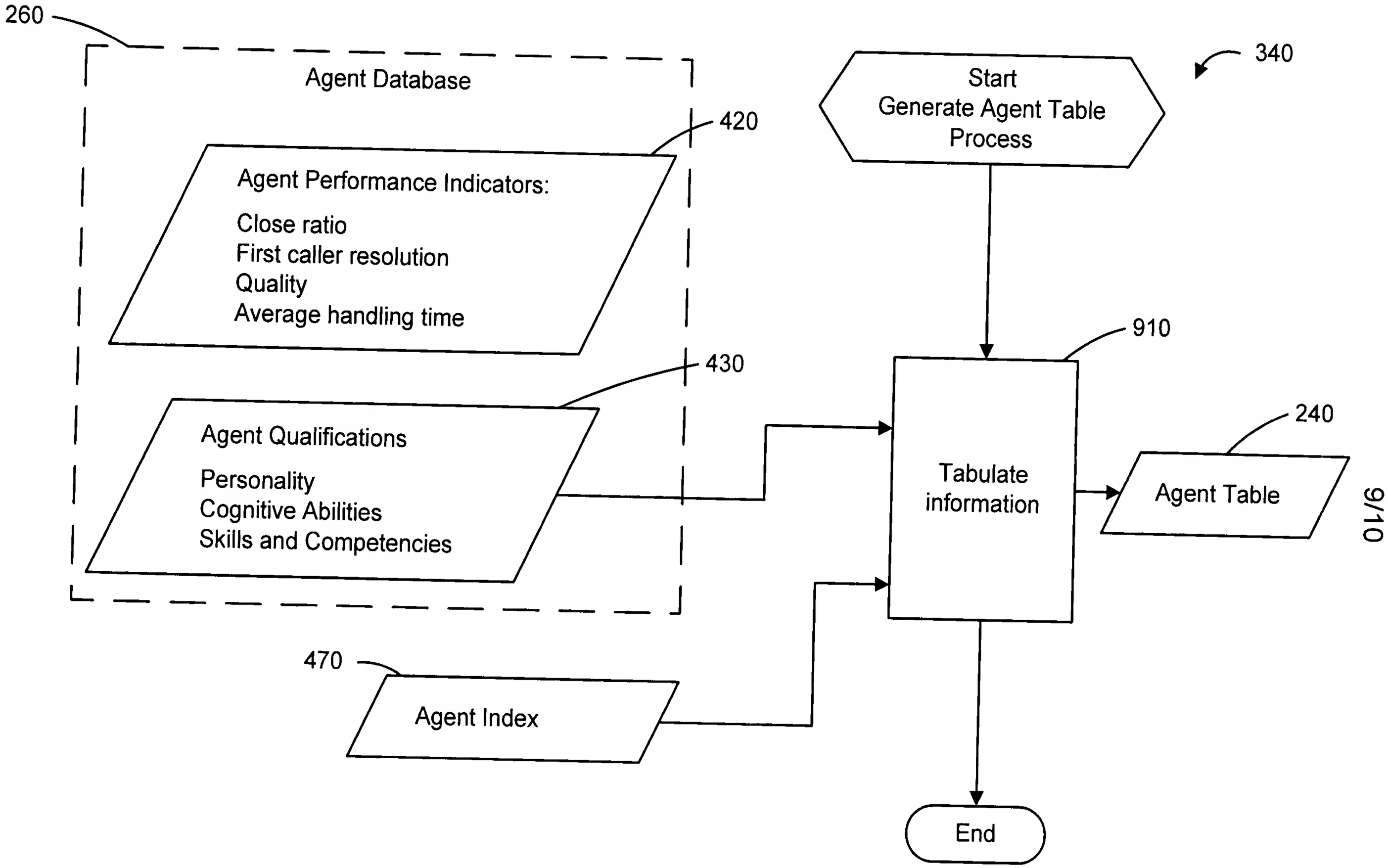

805
815
820
830
840
850
870
Performance Profiles
Agent A
Performance Indicator | Target | Actual | Weight | Score | Index
Close ratio | 56% | 57% | 0 | 0 |
First Call resolution | 90% | 82% | 0 | 0 |
Quality | 95% | 96% | .3 | .288 | 1
Average handling time | 56% | 57% | .7 | .399 |
Total Score | .687 |
860
Agent B
Performance Indicator | Target | Actual | Weight | Score | Index
Close ratio | 56% | 56% | 0 | 0 |
First Call resolution | 90% | 88% | 0 | 0 |
Quality | 95% | 94% | .3 | .282 | 2
Average handling time | 56% | 56% | .7 | .392 |
Total Score | .674 |
810
800

Fig. 8


260
Agent Database
420
Agent Performance Indicators:
Close ratio
First caller resolution
Quality
Average handling time
430
Agent Qualifications
Personality
Cognitive Abilities
Skills and Competencies
470
Agent Index
340
Start
Generate Agent Table
Process
910
Tabulate
information
240
Agent Table
End

9/10

Fig. 9

AGENT TABLE FOR QUEUE 1

Agent	Performance		Traits		Qualifications					
					Skills					
					Languages		Products		Listening	Problem Solving
	Score	Index	Cognitive	Personality	Spanish	English	Flowers	Candy		
Agent A	.687	1	High	Empathetic	P4	P5	P5	P0	P5	P5
Agent B	.674	2	Average	Empathetic	P0	P5	P4	P0	P4	P2
Agent C	.5	5	Average	Competitive	P0	P5	P5	P4	P5	P1
Agent D	.55	4	Average	Aggressive	P5	P5	P4	P2	P2	P3
Agent E	.6	3	Low	Empathetic	P0	P5	P4	P0	P1	P0

1010 1015 1020 1030 1035 1050 1055 1060 1065

1023 1026 1040 1043 1070 1075 1080 1085

240

Fig. 10